

Appl. No. 10/054,623
Reply to Office action of August 12, 2005
Docket. No.: 2102299-991110

REMARKS

To expedite prosecution of this application, Applicants amend each of the independent claims to further clarify aspects of the invention and to even further distinguish over the cited references. Specifically, Applicants amend claim 13 to include some of the limitations of claims 7 and 15 and cancel claim 15 without prejudice. Amended claim 13 now recites "a graphical user interface adapted to allow a user to visually build a workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application." Applicants have also amended claims 1, 7 and 19 to include similar recitations. For example, claim 1 now recites "a first module adapted to allow a developer to visually design workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application." claim 7 now recites "an interactive development environment for visually designing workflow describing a multi-channel application capable of operating over a plurality of channels," and claim 19 now recites "designing an application workflow within said visual development environment, said application workflow describing certain business logic and comprising a plurality of states and a plurality of transitions, wherein said application workflow describes a multi-channel application capable of operating over a plurality of channels, wherein the application workflow comprises a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application." Applicants also amend claim 24 to make it consistent with amended claim 19. Support for these amendments can be found throughout the application and drawings, as shown for example, in originally filed claims 7 and 15.

Applicants believe the foregoing amendments may be entered under 37 C.F.R. § 1.116(a) as presenting rejected claims in better form for consideration on appeal. Alternatively, to the extent any of these amendments are deemed to touch the merits, then entry is requested under 37 C.F.R. § 1.116(b). These amendments were not earlier presented because they are in response to the matters pointed out for the first time in the Final Office Action.

Claims 1-4, 6-14, 16-22 and 24-26 (23 total claims; 4 independent claims) remain pending in the application. Applicants have carefully reviewed the Examiner's "Response to

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Arguments” section at pages 13-25 of the Final Office Action dated August 12, 2005, and respectfully request reexamination and reconsideration of the application.

Oath/Declaration

Applicants note the objection and will submit a new oath or declaration which complies with 37 CFR 1.67(a) and MPEP §§ 602.01 and 602.02. Applicants’ representative is still diligently trying to contact one the Applicants to obtain the his signature.

Art-Based Rejections

Claims 1-4, 6-12, 19-22 and 24-26

The Official Action rejects claims 1-4, 6-12, 19-22 and 24-26 under 35 U.S.C. 102(b) as being anticipated by Flores (U.S. 5,630,069)

Applicants respectfully traverse this rejection for at least the following reasons.

Independent Claim 1

Claim 1 relates to a system for visually building multi-channel applications. The system comprises:

a first module adapted to allow a developer to visually design workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application;

a second module adapted to allow a developer to design views for said multi-channel application; and

a third module adapted to allow a developer to integrate data sources within said multi-channel application. (Emphasis added.)

Applicants submit that the cited Flores reference fails to teach or suggest, for example, a “workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application.” as required by claim 1.

In the Final Office Action dated August 12, 2005, the Office asserts at page 14, section a) that a “work-flow enabled application” corresponds to the claimed “multi-channel application.” At page 17, section e) of the Final Office Action dated August 12, 2005, the Office asserts that “Multiple workflows are interpreted as a plurality of layers, which correspond to channels of the multi-channel application.”

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Applicants respectfully disagree with the Examiner's interpretation of the Flores reference and submit that (1) the workflows do not describe a multi-channel application, (2) the workflow enabled application of Flores is not capable of operating over a plurality of channels, and (3) the workflows do not comprise layers corresponding to channels of the workflow enabled application.

At column 1, line 2, the Flores reference describes a workflow as a "sequence of basic transactions" in a business process, and at column 5: 9-12 of the Flores reference discusses that:

"A workflow-enabled application interfaces to the server via the transactions database of the workflow server or via APIs, or via messaging, database, or inter-process communications (IPCs) or through the use of an STF processor." (Flores at column 5: 9-12; emphasis added)

Applicants submit that the workflows in the Flores reference do not describe a multi-channel application. Rather, the workflows in the Flores reference are a "sequence of basic transactions" in a business process (see col. 1:2 of the Flores reference) which are a "structured set of acts between customers and performers organized to satisfy a customer's conditions of satisfaction." See col. 6, lines 63-65 of the Flores reference.

Applicants further submit that nothing in the Flores reference suggests that the workflow enabled application of Flores is capable of operating over a plurality of channels. Paragraph [0130] of the present application defines a "channel" as "the medium, or the "pipe" over which user interaction takes place. The main channels of access are: "wire-line" access over the Internet; "wireless" data access over cellular and other over-the-air networks; and voice access over analog PSTN networks." Applicants submit that the Flores reference does not suggest the workflow enabled application can be accessed via two or more "channels." Rather, the Flores reference merely suggests alternative mechanisms by which a workflow-enabled application "interfaces to the server." The Flores reference specifies that these mechanisms include the transactions database, APIs, messaging, database, or inter-process communications (IPCs), or an STF processor. Applicants submit that the mechanisms Flores discloses for interfacing to a server do not represent "channels" over which the workflow enable application operates since these mechanisms do not relate to "the medium over which user interaction takes place," but are instead mechanisms by which the workflow-enabled application interfaces to the server.

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Applicants further submit that the Flores reference fails to teach or suggest that "the workflow comprises a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application," as required by claim 1. At page 17, section e) of the Final Office Action dated August 12, 2005, the Office asserts that "Multiple workflows are interpreted as a plurality of layers, which correspond to channels of the multi-channel application." As noted above, the Flores reference uses the term "workflow" to denote "sequence of basic transactions" in a business process (see col. 1:2 of the Flores reference) which are a "structured set of acts between customers and performers organized to satisfy a customer's conditions of satisfaction." See col. 6, lines 63-65 of the Flores reference. Applicants submit that nothing in the Flores reference suggests that the workflow comprises "layers" which correspond "to at least one channel of said multi-channel application," as required by claim 1. Even assuming *arguedo* that the different mechanisms Flores describes for interfacing the workflow-enabled application to the server could somehow be construed as "channels," Applicants submit that the Flores reference is completely devoid of any description which links or correlates the "workflows" to the different interface mechanisms.

Thus, the Flores reference fails to teach the concept of a workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, as required by claim 1.

In addition, Applicants submit that the Flores reference fails teach, for example, "a third module adapted to allow a developer to integrate data sources within said multi-channel application," as required by claim 1. Paragraph [0136] of the present application describes one example of "data sources." In rejecting claim 1, the Office Action cites column 5: 9-12 of the Flores reference (reproduced above) as allegedly teaching "a third module adapted to allow a developer to integrate data sources within said application." Applicants submit that nothing in this portion of the Flores reference would teach or suggest, for example, "a third module adapted to allow a developer to integrate data sources within said multi-channel application," as required by claim 1. Rather, Flores reference merely establishes that an application interfaces to a server via a database, and does not suggest that a data source or data sources can be integrated within an application.

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Accordingly, for at least the foregoing reasons, Applicants submit that claim 1, and its dependent claims 2-4 and 6, are patentable over the Flores reference. In addition, Applicants submit that many of the dependent claims are separately patentable since the Flores reference fails to teach recitations present in those claims.

Dependent Claim 2

Dependent claim 2 requires "an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application." Dependent claim 2 was rejected based on column 14, lines 33-41 of the Flores reference which discusses that:

In a preferred embodiment, the software used to implement the workflow analyst application (Analyst) design is based on the Model-View-Controller (MVC) paradigm of object oriented programming. The MVC paradigm divides an application into three main divisions: Model which represents the core application logic, View which represents the user interface logic, and Controller which represents the message and event handling logic that implements the tools for manipulation of objects. (Flores at column 14: 33-41.)

Thus, the Flores reference discloses that the general concept of a Model-View-Controller (MVC) paradigm is known. Applicants submit that dependent claim 2 is patentable for at least the same reasons discussed above with respect to claim 1.

Applicants submit that the Flores reference fails to teach "an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application." as required by claim 2. Figure 27 of the present application shows one non-limiting example of an MVC architecture used to accomplish this interaction between modules. Applicants submit that nothing in the Flores reference suggests that a conventional Model-View-Controller (MVC) paradigm, such as that shown in Figure 26 of the present application, should be changed to allow a developer to interact with said first, second and third modules.

Dependent Claim 4

Dependent claim 4 requires that the "system is adapted to allow a developer to design multi-modal applications." Paragraph [0008] of the present application defines an example of a multi-modal application as "an application that can be operated via two or more modes, including but not limited to real-time, disconnected, and asynchronous access." The Office

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Action rejects dependent claim 4 based on column 3: 56-67 of the Flores reference. Column 3:56-67 of the Flores reference discusses that:

A workflow can be linked (and initiate) multiple workflows from one of its phases. If all the workflows start at the same moment, the multiple workflows are said to have started in parallel. Multiple workflows can also be started serially. There are two mechanisms to indicate the serialization of workflows. As illustrated in FIG. 2, workflows serial 1 and serial 2 are sequential workflows. The primary workflow at the beginning of the agreement phase, has a link to start workflow serial 1. Workflow serial 2 is linked from the satisfaction phase of workflow serial 1. Upon satisfaction of workflow serial 2, there is a link back to the primary workflow. (Flores at column 3: 56-67; emphasis added.)

The Examiner argues that “Multiple workflows are interpreted as multi-modal applications.” Applicants respectfully disagree with the Examiner’s interpretation, and submits that the Flores reference simply suggests that a workflow can be linked (and initiate) multiple workflows from one of its phases. Nothing in the Flores reference teaches that the workflow enabled application has two or more modes of operation; the Flores reference does not even suggest that the workflows of the workflow enabled application are capable of running in alternative modes such as real-time, disconnected, and/or asynchronous access. As such, the Flores reference fails to teach the concept of a multi-mode application. Thus, Applicants submit that the cited section of Flores fails to teach at least the above-underlined recitations of claim 4. Accordingly, Applicants submit that dependent claim 4 is also separately patentable.

Dependent Claim 6

The Office Action also rejects claim 6 based upon column 4:22-27 and 5:9-12 of the Flores reference which is reproduced above. Dependent claim 6 requires that the “system is adapted to allow a developer to design multi-channel applications including at least two channels selected from the group comprising voice channels, web channels, and wireless web channels.”

Applicants agree that the Flores reference specifies alternative mechanisms by which the workflow-enabled application “interfaces to the server” including the transactions database, APIs, messaging, database, or inter-process communications (IPCs), or an STF processor. Although the Flores reference describes alternative mechanisms by which a workflow-enabled application “interfaces to the server,” the Flores reference fails to suggest that multi-channel applications include “at least two channels selected from the group comprising voice channels,

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web channels, and wireless web channels,” as required by claim 6. Applicants submit that these alternative mechanisms (by which the workflow-enabled application “interfaces to the server”) can not reasonably be interpreted as teaching that the workflows in the workflow enabled application can be designed to operate over at least two of voice channels, web channels, and wireless web channels,” as required by claim 6. For at least the reasons stated above, Applicants submit that the Flores reference fails to teach the above recitations of claim 6. Accordingly, for at least the foregoing reasons, Applicants submit that claim 6 is also separately patentable over the Flores reference.

Independent Claim 7

Claim 7 relates to a system for visually building multi-channel applications. Claim 7 requires:

an interactive development environment for visually designing workflow describing a multi-channel application capable of operating over a plurality of channels,

said environment being adapted to allow a developer to independently design said workflow in a plurality of layers,

each of said layers corresponding to at least one channel of said multi-channel application. (Emphasis added.)

For at least the reasons stated above with respect to claim 1, Applicants submit that the Flores reference fails to teach this recitation of claim 7. Accordingly, for at least the foregoing reasons, Applicants submit that claim 7, and its dependent claims 8-12, are patentable over the Flores reference.

In addition, Applicants submit that many of the dependent claims are separately patentable since they include limitations not taught by the Flores reference.

For example, dependent claim 8 was also rejected based on column 14, lines 33-41 and 15:41-55 of the Flores reference. Dependent claim 8 requires “said interactive development environment provides a graphical interface for independently displaying and designing said plurality of layers.” Applicant submits that dependent claim 8 is patentable for at least the same reasons discussed above with respect to claim 7, and is separately patentable since the Flores reference fails to teach that a graphical interface for “independently displaying and designing said plurality of layers,” as required by claim 8.

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The Office Action also rejects dependent claims 9, 10, 11, 12 based on column 3: 56-67 of the Flores reference which is reproduced above. Dependent claim 9 requires that the “interface is adapted to independently display a root layer including states common to each of said channels of said multi-channel application, and to allow a developer to visually design said root layer.” Dependent claim 10 requires that the “interface is further adapted to independently display a voice layer including states common to a voice channel of said multi-channel application, and to allow a developer to visually design said voice layer.” Dependent claim 11 requires that the “interface is further adapted to independently display a visual layer including states common to a visual channel of said multi-channel application, and to allow a developer to visually design said visual layer.” Dependent claim 12 requires that the “interface is further adapted to display combinations of said root, voice and visual layers.” Again, this section of the Flores reference merely discloses that a workflow can be linked to multiple workflows from one of its phases. Applicants submit that the cited section of Flores fails to teach at least the above-underlined recitations of claims 9- 12. Accordingly, Applicants submit that dependent claims 9- 12 are also separately patentable.

Independent claim 19

For at least the reasons stated above with respect to claim 1, Applicants submit that the cited Flores reference fails to teach, for example, that the “designing an application workflow within said visual development environment, said application workflow describing certain business logic and comprising a plurality of states and a plurality of transitions, wherein said application workflow describes a multi-channel application capable of operating over a plurality of channels, wherein the application workflow comprises a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application,” as required by claim 19.

Applicants further submit that the cited Flores reference fails to teach, for example, “converting said application workflow into an application descriptor for delivering the application over at least one of the plurality of channels,” as required by claim 19. In addition to the reasons stated above, Applicants submit there is absolutely no suggestion of “an application descriptor,” as required by claim 19.

Accordingly, for at least the foregoing reasons, Applicants submit that claim 19, and its dependent claims 20-26, are patentable over the Flores reference.

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In addition, Applicants submit that many of the claims dependent on claim 19 are separately patentable. For example, the Office Action also rejects claim 21 based upon column 15:41-45 of the Flores reference, which states that "The workflow reporter is a GUI application that provides an interface to the transaction databases of the system. It allows the observation of the status of current transactions as well as the history and performance of past transactions." (Emphasis added.) Dependent claim 21 requires "internationalizing said presentation of said application within said visual development environment." One example of internationalization is described at paragraph [0142] of the present application which states that internationalization "is the process of designing an application so that it can be adapted to various locales." Other examples of internationalization are described in Section VIII of the present application at paragraph [0442] – [0474]. Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claim 21. Accordingly, for at least the foregoing reasons, Applicants submit that claim 21 is separately patentable over the Flores reference.

Dependent claim 22 requires "integrating data sources into said application by use of said visual development environment." The Office Action also rejects claim 22 based upon column 5: 9-12 of the Flores reference. For at least the reasons stated above with respect to claim 1, Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claims 22 and 23. Accordingly, for at least the foregoing reasons, Applicants submit that claims 22 and 23 are also patentable over the Flores reference.

In addition, dependent claim 24 requires that the "application workflow is designed in said plurality of layers, wherein each layer includes states and transitions common to at least one channel of said application." For at least the reasons noted with respect to claim 7, Applicants submit that the Flores reference fails to teach the above recitations of claim 24. In addition, Applicants submit that the Flores reference fails to teach "each layer includes states and transitions common to at least one channel of said application," as required by claim 24. Accordingly, for at least the foregoing reasons, Applicants submit that claim 24 is separately patentable over the Flores reference.

Dependent claim 25 requires "componentizing a plurality of said states and transitions into a reusable sub-model within said visual development environment." Dependent claim 26 requires "packaging said application workflow into a reusable component within said visual development environment." The Office Action rejects claims 25 and 26 based upon column

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4:53-57 of the Flores reference, which states that the “definitions database contains records that define each type of business process and workflow in the system. These records are used by the workflow updater and workflow processor to determine new workflow states and available actions.” Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claims 25 and 26. Accordingly, for at least the foregoing reasons, Applicants submit that claims 25 and 26 are separately patentable over the Flores reference.

Independent Claim 13

The Office Action rejects claims 13-18 under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Ambler (U.S. 6,393,456).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants’ disclosure. Applicants respectfully submit that the Examiner has not met all of the above criteria.

For at least the reasons discussed above with respect to claim 1, Applicants submit that the cited references fail to teach or suggest “a graphical user interface adapted to allow a user to visually build a workflow describing a multi-channel application capable of operating over a plurality of channels, the workflow comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application,” as required by amended claim 13.

For at least the foregoing reason, Applicants submit that the cited references fail to teach or suggest these recitations of claim 13. Accordingly, for at least the foregoing reasons, Applicants submit that claim 13, and its dependent claims 14 and 16-18, are patentable over the cited references.

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Conclusion

In conclusion, for the reasons given above, all claims now presently in the application are believed allowable. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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Dated: October 12, 2005

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